Application No. 10/017,403
Amendment dated May 17, 2004
Reply to Office Action of March 19, 2004

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (previously presented):   A method of predicting moisture absorption rate in hygroscopic materials, the method comprising the steps of:

i)   drying a hygroscopic material for a time sufficient to remove residual moisture;

ii)   weighing said hygroscopic material;

iii)   placing said hygroscopic material within a substantially air tight chamber having a controllable atmosphere;

iv)   exposing said hygroscopic material to an environment of known controlled relative humidity in an inert gaseous atmosphere and controlled temperature;

v)   collecting data of moisture absorption over time and using a curve fitting technique to fit the data to a curve using the equation

$$Y = aX^b$$

where: a is a constant ranging from about 0.001 to about 1.0;

b is a constant ranging from about 0.01 to about 10.0;

Y is the mass increase in grams H20 per 100 grams of material; and

X is humidification time in hours;

finding said constants a and b at said known controlled relative humidity and said controlled temperature for said hygroscopic material, assuming constant b is a constant value for said hygroscopic material, and constant a is a variable that is directly proportional to the relative humidity in an inert gaseous atmosphere; and